

What is Claimed is:

1. A micro optical communication device package comprising:

5 a Micro-Electro-Mechanical System (MEMS) chip for executing an optical communication function;

a base for mounting the MEMS chip;

10 an upper housing having an opened bottom and placed on the base to form an internal space together with the base, the upper housing being sealed with the base to hermetically seal the MEMS chip within the internal space;

an optical fiber connected with the MEMS chip through the upper housing to form a light path; and

15 a boot fit around the optical fiber and fixed to the upper housing to seal a portion of the upper housing for allowing passage of the optical fiber.

2. The micro optical communication device package as set forth in claim 1, wherein the boot has one end closely adhering and fixing to the upper housing and the other end closely adhering and fixing to an outer periphery of the optical fiber.

25 3. The micro optical communication device package as set forth in claim 2, wherein the upper housing has a port which is opened downward so that the boot can be inserted through the port,

wherein the one end of the boot is fixedly inserted into the port.

4. The micro optical communication device package as set forth in claim 3, wherein the boot is made of an elastic material.

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5. The micro optical communication device package as set forth in claim 3, wherein the one end of the boot is bonded with the port of the upper housing via ultrasonic welding.

10 6. The micro optical communication device package as set forth in claim 3, wherein the boot, the upper housing and the optical fiber closely adhere and fix to one another via an adhesive which naturally cures under ultraviolet light or heat.

15 7. The micro optical communication device package as set forth in claim 1, wherein the upper housing and the base are hermetically sealed with each other via ultrasonic welding.

20 8. The micro optical communication device package as set forth in claim 7, wherein the upper housing and the base are made of Acrylonitrile Butadiene Styrene (ABS).

25 9. The micro optical communication device package as set forth in claim 7, wherein the upper housing and the base are made of polycarbonate (PC).

10. The micro optical communication device package as set forth in claim 7, wherein the upper housing has a protrusion projected downward, and the base has a protrusion-receiving portion.

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11. A micro optical communication device package comprising:

a Micro-Electro-Mechanical System (MEMS) chip for executing an optical communication function;

10 a base for mounting the MEMS chip;

an upper housing having an opened bottom and placed on the base to form an internal space together with the base, the upper housing being sealed with the base to hermetically seal the MEMS chip within the internal space, and having a port which is opened 15 downward adjacent to the opened bottom;

an optical fiber connected with the MEMS chip through the upper housing to form a light path; and

20 a boot fit around the optical fiber and fixed to the upper housing to seal the port of the upper housing for allowing passage of the optical fiber, the boot having one end closely adhering and fixing to the upper housing and the other end closely adhering and fixing to an outer periphery of the optical fiber.

25 12. The micro optical communication device package as set forth in claim 11, wherein the boot is made of an elastic material.

13. The micro optical communication device package as set forth in claim 11, wherein the one end of the boot is bonded with the port of the upper housing via ultrasonic welding.

5 14. The micro optical communication device package as set forth in claim 11, wherein the boot, the upper housing and the optical fiber closely adhere and fix to one another via an adhesive which naturally cures under ultraviolet light or heat.

10 15. A micro optical communication device package comprising:

a Micro-Electro-Mechanical System (MEMS) chip for executing an optical communication function;

a base for mounting the MEMS chip;

15 an upper housing having an opened bottom and placed on the base to form an internal space together with the base, the upper housing being sealed with the base via ultrasonic welding to hermetically seal the MEMS chip within the internal space;

20 an optical fiber connected with the MEMS chip through the upper housing for forming a light path; and

a boot fit around the optical fiber and fixed to the upper housing to seal a portion of the upper housing for allowing passage of the optical fiber.

25 16. The micro optical communication device package as set

forth in claim 15, wherein the upper housing and the base are made of Acrylonitrile Butadiene Styrene (ABS).

17. The micro optical communication device package as set forth in claim 15, wherein the upper housing and the base are made of polycarbonate (PC).

18. The micro optical communication device package as set forth in claim 15, wherein the upper housing has a protrusion projected downward, and the base has a protrusion-receiving portion.